

## **REMARKS**

Reconsideration of the application in light of the amendments and the following remarks is respectfully requested.

### **Status of the Claims**

Claims 1-54 and 56 are pending in this case. Claims 1, 3, 19, 21, 37, and 39 have been amended. Claims 56 has been added. No new subject matter has been added.

### **Examiner Telephone Interview**

In a telephone inquiry on May 11, 2006, Examiner Diaz clarified that the Office Action mailed on May 2, 2006 is, in fact, a “final” rejection, hence the filing of the accompanying Request for Continued Examination in which claims 1-54 and 56 are now pending. Claim 55 had been previously canceled.

The Examiner refers to the Interim Guidelines (November 2005) which applicants note make express that “[I]t is essential that patent applicants obtain a prompt yet complete examination of their applications.” Given the Examiner’s reference to the Guidelines and the substance of the Office Action which refers to certain prior art having been made of record but not applied against the claims, the comment on Page 2, paragraph No. 3 that he “allowability will be reassessed once the § 101 issues are clarified” is understood as an indication that the sole impediment to allowance of all claims is the Section 101 rejection, which is addressed below.

### **Discussion of Rejection Under 35 U.S.C. § 101**

Claims 1-55 stand rejected under 35 U.S.C. § 101 for being directed to non-statutory subject matter. As noted, claim 55 had previously been cancelled and so the rejection with respect to that claim is moot. The comments below are directed to the independent claims 1, 3, 19, 21, 37, and 39, unless expressly noted otherwise.

The Examiner contends that claims 1-54 do not produce either a useful, concrete, or a tangible result as required under 35 U.S.C. § 101. Applicants respectfully disagree with the Examiner's interpretation of the independent claims. In view of the Examiner's contentions, Applicant submits the above amendments and the following arguments as well as supporting evidence including a "Declaration in Support of Patentability," under 37 C.F.R. § 1.132 ("Groveman Declaration") from a person in the financial industry, attached hereto as Exhibit A, and a "Declaration of Peter Ohnemus," under 37 C.F.R. § 1.132 ("Ohnemus Declaration"), one of the named inventors.

Mr. Groveman has been involved in the securities industry for more than 15 years and is a co-founder and Managing partner of NIR Capital Management, LLC. Groveman Declaration, ¶2. Included in Mr. Groveman's relevant experience, he was previously the co-head of the equity derivatives effort, the chairman of the global risk management committee for the private client services division, and a Senior Registered Options Principal at Lehman Brothers. *Id.* Mr. Groveman has a Bachelor of Science in Computer Sciences and is a graduate from Columbia University School of Business with a Major in Finance. *Id.* Additional details regarding Mr. Groveman's qualifications can be found in paragraph 2 of the Groveman Declaration. Mr. Groveman has relevant qualifications to provide him with an understanding of the technology of the present invention and its potential application in the financial industry in support of the facts, statements and opinions set forth in the remaining paragraphs of his declaration.

Mr. Ohnemus is an inventor of the present application. He has developed more than 200 software projects for the financial industry, is currently the co-founder of ASSET4 (the assignee of this patent application), and serves on the boards of Rothschild Bank, SQL AG, and Visonys. He graduated from one of the most respected business schools in Europe, IMD Lausanne, where he studied mergers and acquisitions. Mr. Ohnemus was the co-founder and CEO of The Fantastic Corporation, and he has also held executive positions with Sybase, Logic Works, and COS. He was named the “Entrepreneur of the Year 1999” in Switzerland and is a frequent commentator in the trade and business media. Additional details regarding Mr. Ohnemus’ qualifications can be found in paragraph 2 of the Ohnemus Declaration. As the inventor of the present invention, and his aforementioned qualifications, Mr. Ohnemus has an understanding of the technology of the present invention and its application in the financial industry in support of the facts, statements and opinions set forth in the remaining paragraphs of his Declaration.

The Patent Examiner contests the usefulness, the concreteness, and the tangibility of the claimed invention, in that order. Applicants address each of these findings, in the same order.

#### The Independent Claims Are Directed To A Useful Result

The Examiner contends that it is not clear how the claimed “sustainability score” is useful. (Detailed Action, item 5, page 3.) The Examiner acknowledges that the score is based on at least one coefficient value input by a user and at least one non-economic factor, but appears to reject the usefulness of the sustainability score because the claims are not more specific as to coefficients and non-economic factors --features not required in view of any cited prior art.

The Examiner contends usefulness is lacking because the claims do not “clarify what the input coefficient value(s) and non-economic factors(s) represent, all of which may be arbitrarily assigned by the user, thereby making it difficult to assess if a sustainability score can credibly be generated from these undefined factors.” (Detailed Action, item 5, pages 3-4.) The Examiner further contends that because of this arbitrariness, “it is not clear what the sustainability score represents, thereby rendering it nonspecific.” (Detailed Action, item 5, page 4.)

To the contrary, the non-economic factor(s) are those that populate a database that is accessed by the rating system referred to in the independent claims. As a consequence, the non-economic factors are not arbitrarily assigned by a user nor are they random. Instead, they find a basis in the populated database. Further specificity of the claim is not warranted by the prior art, nor does the question of “usefulness” turn on these details of the claim. Rather, usefulness is a particular consideration in the overall inquiry as to whether a claim provides a practical application that produces a “useful, tangible and concrete” result.

Respectfully, the specification clearly describes a sustainability score that has a useful result in support of the practical application of the subject matter recited in the independent claims. The specification describes a sustainability score which is credibly yet flexibly generated from a variety of coefficient values and non-economic factors. Such a sustainability score is useful in characterizing entities in view of certain non-economic factors such as their societal and environmental responsibility and impact and their corporate governance, as is explained in the specification. (*See* Specification, page 1, lines 5-8; Specification, page 4, lines 21-30; and Specification, page 16, line 21- page 17, line 2.) Mr. Groveman points out at Paragraph 7 of his declaration the usefulness of the sustainability score resulting from the invention of the independent claims, as being a transformation of non-economic factors:

it allows a user to rate one or more companies based, at least in part, on non-economic factors that are transformed into a sustainability score.

Similarly, at Paragraph 7 of the Ohnemus Declaration, Mr. Ohnemus documents usefulness in the transformation of non-economic data into a score that combines different pieces of information, and identifies additional usefulness in the ability to customize the coefficient values being used to impart a personal or institutional interpretation (weighting) to the resulting score:

[T]he sustainability score can be used as a reference to rate companies with respect to non-economic data, such as child labor practices. Moreover, by accepting user-input coefficients and ‘associating each of the . . . coefficient values with the respective data concerning at least one non-economic’ the claimed invention provides a user with the ability to change how certain non-economic factors are weighed in computing the sustainability score.

The ability of a user to input coefficient values empowers the claimed invention with flexibility and adaptability, thereby increasing its usefulness. The specification identifies the usefulness of the sustainability score in describing that “different investors may compute personalized scores that express their own ideologies or institutional preferences/perspectives.” (Specification, page 5, lines 18-20.) The Ohnemus Declaration is in full agreement with the usefulness of this further feature, as quoted above, which is recited in each of the independent claims. As well, Mr. Groveman identifies the usefulness of this feature at Paragraph 7 of his declaration:

The invention recited in the claims allows the user to customize the computation of the sustainability score by weighting the factors in accordance with predetermined or user-defined performance models.

Applicants respectfully submit that the independent claims concern a practical application that provides a useful result to persons in the financial industry, as supported by the instant specification and the accompanying declarations.

The Independent Claims Are Directed To A Concrete Result

The Examiner also contends that the independent claims are not directed to a concrete result on the grounds that a “human user enters coefficient values.” From this premise, the Examiner concludes that “coefficient values appear to be based on subjective data,” the analysis of which “is not consistently used to yield results that are substantially repeatable.” (Detailed Action, item 5, page 4.)

This line of reasoning is traversed.

It makes no difference to whether a claimed invention provides a concrete result as to whether a coefficient value is entered by a human or a machine. Surely the Examiner is not suggesting that a concrete result is achieved in the analysis of information entered automatically. Coefficient values, once entered by a user, are available to the system for application, in formulae or otherwise, time and again, and it is the repeated application of those values that enable personalization so as to empower users with scores computed in regard to their preferences and perspectives. (See Specification, page 5, lines 18-20: “different investors [to]

compute personalized scores that express their own ideologies or institutional preferences/perspectives.”).

The Examiner mischaracterizes the resulting sustainability score as being “purely subjected to the potentially random opinions of the users without any corresponding methodology to provide consistent significance to analysis of the sustainability score results.” (Detailed Action, item 5, page 4.) Users do not “randomly” define coefficients, nor is the analysis (in the form of the computed score) lacking consistency. To the contrary, coefficients, when input, reflect a subjective preference which operates on the data to personalize the output. (Specification, page 5, lines 18-20.) Nevertheless, the output remains concrete because the score is computed on the basis of a “formula” and therefore has a consistent basis for analysis. Respectfully, further detail is not required in independent claims under rejection to support subject matter eligibility.

Indeed, use of information from a database to arrive at a score is no less concrete than the calculation of a price based on multiple factors and dynamically changing information which has been adjudicated as being a “concrete” application in the *State Street Bank* case.

Concreteness is apparent upon consideration of the fact that the sustainability score is calculated based on a transformation of user-input coefficients and at least some non-economic data. The resulting sustainability score is repeatable for any set of inputs. In particular, there is no randomness imparted to the system merely because a user can enter coefficient values or because a “formula” is only generally recited. The Groveman Declaration at paragraph 8 provides an example in support of Applicants position which represents an exemplary state of facts:

By way of example, for a given set of coefficients representing a particular financial model, two companies with identical non-economic data will result in the computation of the identical sustainability score. In this manner, a user can analyze the sustainability rating of one or more companies with complete assurance that the performance model defined by the specified set of coefficients is repeatably and reliably applied to the economic and non-economic data of each respective company.

The Ohnemus Declaration, at paragraph 8, points out concreteness, predictability and repeatability of the sustainability score, notwithstanding user input variables, by way of comparison to other tools in the financial industry which similarly provide analyses based upon ever changing financial information:

The sustainability score output or generated by the Pending Claims is based on continuously changing financial information just like many tools in the financial industry do. The data (e.g., non-economic data) provided to the system may change over time, as does other information used in the financial industry. However, for a given set of data and user-input coefficients, the score that is output is an objective calculation and is repeatable by virtue of the formula being used.

Also in concluding that the independent claims lack concreteness, the Examiner states “[i]f each user selects a different set of factors and corresponding coefficients, it is not clear that comparison of respectively yielded sustainability scores would be useful or significantly repeatable. . . . [T]he resulting comparison would be inconsistent since it might be based on an apples and oranges comparison.” (Detailed Action, item 5, page 4.) Respectfully, the Examiner has miscomprehended the invention. The sustainability scores computed for one user are not



described or claimed as being compared to those of another user. The claims recite that a sustainability score is “output,” not that there is a comparison to scores produced by other users. Each user can establish a preference or perspective for producing sustainability scores and the so-produced scores provide can provide a reference for a relative assessment among the scores.

Applicants respectfully submit that the independent claims concern a practical application that provides a concrete result to persons in the financial industry, as supported by the instant specification and the accompanying declarations.

#### The Independent Claims Are Directed To A Tangible Result

The Examiner also contends that even were the sustainability score to result in a practical application, the claimed features are recited so broadly and abstractly as to “feasibly preempt every substantial practical application thereof, which is prohibited under 35 U.S.C. § 101.” Applicant appreciates the prohibition referred to by the Examiner, but disagrees that the independent claims preempt all practical applications of any particular formula

The features noted by the examiner --the input of coefficient values, the use of data comprising non-economic factors, and the computation of a sustainability score using a formula- are not individually claimed as inventions nor are any of these preempted. Rather, the features recited in the claims are in a method or system in which these elements are applied and combined to produce a score which yields a concrete, useful, and tangible result which is directed to one field of use (the rating of a company or of an industry including several companies), and not all practical applications.

“A principle, in the abstract, is a fundamental truth; an original cause; a motive” which cannot be patented. (*Le Roy v. Tatham*, 55 U.S. 156, 175 (1853).) However, “[i]t is now

common place that an application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.” (*Diehr*, 450 U.S. 175, 187 (1981).) Thus, a claim must be for a “practical application of the abstract idea.” (U.S.P.T.O. Interim Guidelines for Examination of Patent Application for Patent Subject Matter Eligibility at § (IV)(C)(2) (*quoting* *Deihr*, 450 U.S. at 187.))

The sustainability score computed by the claimed invention for a company or an industry is not an abstraction, but rather is a result which has applicability to the financial industry. (Specification, page 2, lines 1-5.) It is a tangible result that can be relied upon and utilized by people in the financial industry. (*See* Groveman Declaration, ¶ 6.) A tangible result in the form of a particular type of score using non-economic data is provided which is “suitable for reference or reliance by persons in the financial industry because it provides a point of reference or comparison.” (Ohnemus Declaration, ¶ 6.)

Furthermore, the sustainability score provides a tangible metric by which entities can be measured and compared using economic and non-economic data (e.g., social responsibility, environmental responsibility, and corporate governance). The claimed invention further “enables a user to imprint his/her own world view on the computed sustainability scores,” by specifying coefficients to weight the factors in according with a particular performance model. (*See* Groveman Declaration, ¶ 6.) Thus, Applicant is not claiming an abstract idea or principle, nor is the Applicant preempting every substantial practical application thereof. Rather the claimed invention applies the aforementioned abstractions to compute a specific tangible result.

Applicants further submit that, under Section (IV)(C)(3) of the Interim Guidelines for Examination of Patent Application for Patent Subject Matter Eligibility, “[i]f an examiner determines that the claimed invention preempts a Sec. 101 judicial exception, the examiner **must**

**identify the abstraction . . . and explain why the claim covers every substantial practical application** thereof.” (emphasis added.) Applicants respectfully submit that the Examiner has neither identified the abstraction nor explained why the claimed invention covers every substantial practical application thereof. Rather, the Examiner has merely stated that the “the claimed coefficient values, non-economic factors, sustainability score and related formula are **recited so broadly and abstractly** that the claimed invention **could feasibly** preempt every substantial practical application thereof.” (emphasis added.) Applicants respectfully request that, if the Examiner is not persuaded by Applicants’ amendments and remarks, that the Examiner “identify the abstraction. . . and explain why the claim covers every substantial practical application,” so that Applicants’ may better focus their response.

Applicants respectfully submit that the independent claims concern a practical application that provides a tangible result to persons in the financial industry, as supported by the instant specification and the accompanying Declarations.

Thus, the claimed invention provides results which are “useful, concrete, and tangible.” For at least the foregoing reasons, Applicants submit that claims 1-54 are eligible subject matter under 35 U.S.C. § 101.

#### **Newly Presented Claim**

Independent claim 56 has been added by the Applicant to more completely cover the subject matter disclosed in the present patent application. Claim 56 is similar in subject matter to

that of claims 1-54, yet recites more particularly the use by the formula of coefficients and non-economic data.

### **CONCLUSION**

Each and every point raised in the Office Action dated May 2, 2006, has been addressed on the basis of the above amendments and remarks. In view of the foregoing it is believed that claims 1-54 and 56 are in condition for allowance and it is respectfully requested that the application be reconsidered and that all pending claims be allowed and the case passed to issue.

If there are any other issues remaining which the Examiner believes could be resolved through a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at the telephone number indicated below.

Respectfully submitted,

/David Leason/

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David Leason  
Reg. No. 36,195  
Attorneys for Applicants

DARBY & DARBY, P.C.  
Post Office Box 5257  
New York, N.Y. 10150-5257  
Phone: (212) 527-7700